

PATENT CLAIMS

1. A method for preparing an artificial patination material to substrates preferably made of copper or copper alloys, in which method at least one copper salt is used as a raw material, which is precipitated with an alkali metal hydroxide, the formed sludge is filtered for forming a precipitate, **characterized** in that the reaction between the raw material and the alkali metal hydroxide is stopped with water, the precipitate is dispersed with powerful mixing and an addition of a dispersing agent, and in addition, both an oxidative agent is used and carbon as an agent for catalysing natural patina forming and at least one stable metal compound as a colour pigment for achieving desired colour and/or colour tinge.
2. A method according to claim 1, **characterized** in that at least one of the group including copper sulfate, copper nitrate, copper chloride, copper carbonate ore their mixture is used as the raw material of the artificial patination material.
3. A method according to claim 1 or 2, **characterized** in that copper sulfate is used as the raw material of the artificial patination material.
4. A method according to any one of claims 1 to 3, **characterized** in that manganese dioxide is used as an oxidative agent.
5. A method according to any one of claims 1 to 4, **characterized** in that an iron compound is used as a raw material of the artificial patination material.
6. A method according to any one of claims 1 to 5, **characterized** in that an iron compound is used as an oxidative agent.

7. A method according to any one of claims 1 to 6, **characterized** in that an inorganic metal compound is used as colour pigment.
8. A method according to any one of claims 1 to 7, **characterized** in that an iron compound is used as a colour pigment.
9. A method according to any one of claims 1 to 7, **characterized** in that iron and aluminium compound, iron, manganese and aluminium compound or iron, manganese, silicon and aluminium compound is used as a colour pigment.
10. A method according to any one of claims 1 to claim 7, **characterized** in that manganese compound is used as a colour pigment.
11. A method according to any one of claims 1 to claim 7, **characterized** in that copper compound is used as a colour pigment.
12. A method according to claim 11, **characterized** in that copper carbonate compound, copper silicate- copper carbonate compound or calcium copper silicate compound is used as a colour pigment.
13. A method according to any one of claims 1 to claim 7, **characterized** in that chromium(III) compound is used as a colour pigment.
14. A method according to any one of claims 1 to 7, **characterized** in that magnesium- aluminium- and potassium compound is used as a colour pigment.
15. A method according to any one of claims 1 to claim 7, **characterized** in that coal is used as a colour pigment.

16. A method according to any one of claims 1 to claim 15,
characterized in that the amount of the colour pigment in the
patination material dry matter is at most 5 %.

5 17. A method according to any one of claims 1 to 16, **characterized** in
that an alkyd-based compound is used as a binder and the binder is
added to the patination material during its preparation.

10 18. A method according to claim 17, **characterized** in that the amount of
the binder is at highest 10% of the patination material dry matter.

19. A method according to any one of claims 1 to 18, **characterized** in
that the amount of dry matter in the patination material is between 15
– 50%.

15 20. An artificial patination material to substrates preferably made of
copper or copper alloys wherein at least one copper salt is used as a
raw material, precipitated with an alkali metal hydroxide and the
formed sludge filtered for forming a precipitate, **characterized** in that
20 the reaction between the raw material and the alkali metal hydroxide
was stopped with water, the precipitate dispersed with powerful mixing
and an addition of a dispersing agent, and the paste contains an
oxidative agent and carbon for catalysing natural patina forming and
at least one stable metal compound is used as a colour pigment for
25 achieving desired colour and/or colour tinge.

21. A patination material according to claim 20, **characterized** in that an
alkyd-based compound is used as a binder.

30 – 22. A patination material according to claims 20 or 21, **characterized** in
that at least one of the group including copper sulfate, copper nitrate,

copper chloride, copper carbonate ore their mixture is the raw material of the patination material.

- 5 23. A patination material according to any one of claims 20 to 22, **characterized** in that copper sulfate is the raw material of the patination material.
- 10 24. A patination material according to any one of claims 20 to 23, **characterized** in that a part of the patination material is posnjakite ($\text{Cu}_4\text{SO}_4(\text{OH})_6 \cdot 2\text{H}_2\text{O}$) with a grain size between 0,2 – 80 μm .
- 15 25. A patination material according any one of claims 20 to 24, **characterized** in that a grain size of the patination material particles is between 0,2 – 100 μm .
- 20 26. A patination material according any one of claims 20 to 25, **characterized** in that the amount of dry matter in the patination material is between 15 – 50%.
27. A patination material according to any one of claims 20 to 26, **characterized** in that the binder covers only partially the patination material particles.
- 25 28. A patination material according to any one of claims 20 to 27, **characterized** in that inorganic metal compound is used as a colour pigment.
29. A patination material according to any one of claims 20 to 27, **characterized** in that iron compound is used as a colour pigment.
- 30 30. A patination material according to any one of claims 20 to 27, **characterized** in that iron and aluminium compound, iron, manganese

and aluminium compound or iron, manganese, silicon and aluminium compound is used as a colour pigment.

- 5 31. A patination material according to any one of claims 20 to 27, **characterized** in that manganese compound is used as a colour pigment.
- 10 32. A patination material according to any one of claims 20 to 27, **characterized** in that copper compound is used as a colour pigment.
- 15 33. A patination material according to claim 32, **characterized** in that copper carbonate compound, copper silicate-copper carbonate compound or calcium copper silicate compound is used as a colour pigment.
- 20 34. A patination material according to any one of claims 20 to 27, **characterized** in that chromium(III) compound is used as a colour pigment.
- 25 35. A patination material according to any one of claims 20 to 27, **characterized** in that magnesium, aluminium and calcium compound is used as a colour pigment.
- 30 36. A patination material according to any one of claims 20 to 27, **characterized** in that coal is used as a colour pigment.
37. A patination material according to any one of claims 20 to 36, **characterized** in that the amount of the binder is at highest 10% of the patination material dry matter.
38. A patination material according to any one of claims 20 to 37, **characterized** in that the storage time is several months.

39. A patination material according to any one of claims 20 to 38,
characterized in that the paste is storable in room temperature.

5 40. A patination material according to any one of claims 20 to 39,
characterized in that the amount of the colour pigment is at most 5%
of the patination material dry matter.